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in the beginning, Mr. Swan's process, notwithstanding its striking similarity to Mr. Outerbridge's, may be fairly original with Mr. Swan, but it was also original with Mr. Outerbridge some seventeen years before Mr. Swan appears to have made his achievement known.

The Protohistoric Ethnography of Western Asia.

By Daniel G. Brinton, M.D.

(Read before the American Philosophical Society, April 19, 1895.)

Many of the most weighty problems in ethnography and in the history of civilization depend for their solution on the relative positions of races and linguistic stocks in western Asia at the dawn of history. The numerous special studies which have been devoted to the archæology of this region are abundantly justified by the importance of the results obtained and yet to be expected.

It is my intention in this article to examine these studies with the aim of ascertaining what races and stocks occupied the area in question in protohistoric times, and where lay the lines of demarcation between them. It is possible that by bringing to bear upon the questions involved the general principles of ethnographic research, some light may be thrown on points still obscure. This I shall have in view when it appears applicable.

The area to be considered is roughly that portion of Asia between the thirtieth and fortieth parallels of north latitude, and west of the fiftieth meridian east of Greenwich. It includes the whole of the Euphrates-Tigris valley, Syria, Asia Minor and Trans-Caucasia.

ALLEGED PREHISTORIC RACES.

The assertion has been often made that there are indications of races in this area belonging to other varieties of the human family than those discovered there in the protohistoric period.

These statements require to be examined as a preliminary to the study of the earliest historic peoples.

1. *An Alleged Primitive Black Race (Dravidian or Negritic).*

The theory was advanced by Lenormant that lower Mesopotamia and southern Persia were once peopled by an ancient branch of the black-skinned Dravidians of India. This opinion has of late years been defended by De Quatrefages, Oppert, Lefèvre, Schurtz, Schiaparelli, Conder and others.*

The only evidence which seems at all to support such a view is the presence in the Khanate of Celat of the Brahu tribe, who have been by some classed with the Dravidas or Mundas of India. They are certainly negroid, with swarthy complexions, flat noses, scanty beard, hair black and curly, cheek bones high and face broad. Their language has undoubted Dravidian elements, the words for "one" and "two," for example, and many others. But its grammar seems to me to be much more Aryan than Dravidian. The verbal subject is a separable pronominal prefix, the nouns have declensions, and the suffixes are no longer root-words. It is probable they are merely a hybridized outpost of the Dravidian stock.† It is well to remember that they dwell on the affluents of the Indus, twelve hundred miles distant from the Euphrates, and there is no reason to suppose that they were ever nearer it.

The undersized negritic population which is found in the Andaman and other islands south of the Asiatic continent has been supposed, principally on the strength of some discoveries of negroid heads and portraiture at Susa by M. Dieulafoy, to have extended into Babylonia. But these sculptures belong to a comparatively late period, and if negritic—and their strong beards render such a supposition improbable—they are much more likely to have been of slaves or captives than of an old resident population.‡ This would also explain the somewhat negroid traits of the modern Susians.

* See De Quatrefages, *The Pygmies*, pp. 55, 56 (Eng. trans., N. York, 1895); Lefèvre, *Race and Language*, p. 118; Schurtz *Catechismus der Völkerkunde*, p. 155; L. Schiaparelli, "Sull' Etnografia della Persia antica anteriore alle Invasione ariane," in *Atti della R. Accad. delle Scienze di Torino*, 1888. The last-mentioned distinctly identifies the Brahu as the remnant of the primitive speech.

† "Synoptical Grammar and Vocabulary of the Brahoe Language," in Bellew, *Travels from the Indus to the Euphrates*. There are only three numerals in the language: 1, *asit*; 2, *irat*; 3, *musit*. The others are borrowed from the Persian. The first may be compared to the Sumerian *ash*, one. Mr. R. N. Cust, in his *Languages of the East Indies*, is doubtful about the Dravidian relationship.

‡ The theory that the beard and hair are artificial of course destroys ethnic value of any kind for these figures.

The "Asiatic Ethiopians," mentioned by Herodotus and some other early Greek writers, were not negroid. They are described as having straight hair, and it has been shown by Georges Radet that some of them at least were Semites.*

2. *An Alleged Primitive Hamitic (Cushite) Race.*

By the "Hamitic" stock, ethnographers and linguists now mean those who speak dialects of the Berber languages of northern Africa and their affined tongues, the Galla, Somali, Danakil, etc., of eastern Africa. The "Cush" of the ancient Egyptians was largely peopled by Hamites, and the oldest inhabitants of Egypt itself were probably of Hamitic blood.

The idea of locating members of this stock on west Asian soil was no doubt first derived from the book of Genesis.† That respected authority states that Nimrod, the son of Cush and grandson of Ham, settled in the plain of Shinar and built the first cities of Babylonia. This statement was eagerly adopted by the early Assyriologists, notably by Sir Henry and Prof. George Rawlinson, by Lepsius, Loftus and others. The language of old Babylon was even identified with the modern Galla, and the passage of the Hamites or Cushites across the Red Sea, by way of Arabia to the Persian Gulf, was accurately traced!‡

Another band was supposed to have entered Palestine and to have left representatives in the light-complexioned Amorites of the highlands.

It must be acknowledged that later researches have accumulated no evidence in favor of these ancient legends. Except in

* See his extended discussion of the passages in the *Révue Archéologique*, Tome xxii (1893), p. 209, sq.

† The genealogical list of peoples in Genesis x is often appealed to in support of theories in ethnography. That list has much interest politically, geographically and even historically; but cannot at all be accepted on questions of ethnic affiliations. Schrader, Hommel and Delitzsch have expressed the opinion that the "Cush" of Gen. x. 8, etc., refers to the Kashites of the lower Tigris, who will be discussed later. Fried. Delitzsch, *Die Sprache der Kossäer*, p. 61, note.

‡ See Prof. Rawlinson in Smith's *Dict. of the Bible*, s. v. "Chaldeans;" and Sir Henry in the notes to his translation of Herodotus; W. K. Loftus, *Travels in Chaldea and Susiana*, pp. 69, 70, 96. Lepsius' views are severely criticised by Dr. W. Max Müller in his erudite work, *Asien und Europa nach ägyptischen Inschriften* (Leipzig, 1893), p. 343. The theory has recently been developed by M. Lombard in his "Description ethnographique de l'Asie Occidentale," in the *Bull. de la Soc. d'Anthropologie* of Paris, 1890, though his connotation of the term *chamitique* differs from that of Rawlinson.

one or two possible instances in southern Arabia,* no example of a Hamitic dialect has been discovered in Asia; and Babylonian Semitic is as far from Galla as is ancient Arabic.

Principally because they are said to have been blonds, Prof. Sayce claims the Amorites as Libyans. But there are blonds in considerable numbers among the pure-blooded Arabs of the desert. Therefore this trait is not conclusive. Moreover, some of the ablest critics now believe that "Amorite" and "Canaanite" were merely ethnically synonymous terms applied to the same Semitic people.† At any rate, the Amorites, if non-Semitic, are much more likely to have been allied to the tribes north of them than to the African Libyans.

3. *An Alleged "Turanian" (Sibirie or Sinitic) Race.*

A favorite theory with many writers, notably Lenormant, Sayce, Conder, Isaac Taylor, etc., has been that the "Turanians" extended over western Asia and central and southern Europe in prehistoric times.‡

Who these Turanians were is not always clear. Prof. Sayce sometimes calls them "Ugro-Altaic," at others, "Ugro-Mongolian," by the former meaning collaterals of the Finns, Tartars and Turks (those whom I call Sibirie),§ and by the latter apparently including the Chinese.

Apart from the alleged evidence from linguistic data, which I shall consider later, scarcely anything save assertions have been offered in favor of this opinion. Before the historic invasions of western Asia by the Sibirie tribes, there is no record of their presence in Persia or west of it. There are no remnants of a prehistoric occupation by them, no existing fragments of a primitive Sibirie tongue. The only groups of Mongols now in the limits of ancient Iran, to wit., the Hasarah and

* Notably the Ekhili or Mahri in the Hadramaut. See M. de Charency's study of this dialect in *Actes de la Société Philologique*, T. i, p. 31, sqq. Dr. Glaser has recently obtained more material, but this has not yet been published.

† The question is impartially stated in J. F. McCurdy, *History, Prophecy and the Monuments*, Vol. i, pp. 406-408 (New York, 1894). Dr. W. Max Müller assigns strong reasons for considering the Amorites to have been pure Semites, *Asien und Europa*, pp. 230-234.

‡ The evidence in favor of this theory is fully summed up by C. R. Conder in his article, "The Early Races of Western Asia," in the *Jour. of the Anthropological Institute*, 1890, p. 304, sq., and in his *Syrian Stone Lore* (London, 1886).

§ See the classification of the Asian race which I adopt in my *Races and Peoples; Lectures on the Science of Ethnography*, p. 194 (New York, 1892).

the Aimak, between Herat and Cabul, and a few others, drifted there in the mighty inundation of Ghenghis Khan in the fourteenth century of our era.*

According to their own traditions, and the concurrent testimony of the oldest Chinese annals, the present Khanates of Khiva, Bokhara and Khokan, as well as eastern Turkistan, were inhabited in the most ancient time by an Aryan population, which was conquered or expelled by the Mongol-Tartar race within the historic period.†

This is substantiated by the most recent researches with reference to the ethnic position of the ancient Asian Scythians who are located in that vicinity by the Greek geographers. They are shown to have been members of the Indo-European family.‡

It is even very doubtful that in the remote Avestan period of the history of eastern Iran the Aryans had to contend with Altaic or Mongolic hordes; for their enemies are represented as using war chariots, which were unknown to the Tartar horsemen.§ The so-called non-Aryans (*anarya*) probably were merely other tribes of Indo-European origin, of different culture and religion.|| The peculiar arrow release of the Mongolians and their characteristic bows are not depicted on the oldest monuments, nor were they familiar to the early western tribes of Asia.¶

Physically the protohistoric peoples of western Asia nowhere display clear traits of the well-marked type of the Sibiric stock. Judged either by the portraiture on the monuments or by the cranial remains in the oldest cemeteries, they were meso- or dolicho-cephalic, with straight eyes, oval or narrow faces, distinct nasal bridges, etc.

A persistent effort was made a few years ago by the Rev. C. J. Ball to prove that the language and blood of the southern

* H. Schurtz, *Catechismus der Völkerkunde*, p. 292.

† W. Geiger, *Civilization of the Eastern Iranians in Ancient Times*, p. 18; Gregorjew, *Bulletin of the Oriental Congress at St. Petersburg*, 1876, p. 38.

‡ Bertin in *Jour. of the Anthropol. Inst.*, 1888, p. 109; Hovelacque, *La Linguistique*, p. 190, and others.

§ W. Geiger, u. s., who inclines, however, to a pre-Aryan hypothesis.

|| Geiger points this out clearly, and it is surprising that Schrader and Jevons (*Prehistoric Antiquities of the Aryan People*, London, 1890) fail to note that *arya* in the Avesta is a religious, not an ethnic, distinction.

¶ See Prof. E. S. Morse's suggestive study on arrow releases as an ethnic trait in *Essex Institute Bulletin*, 1885.

Babylonians were distinctly Chinese.* His essays on this subject are striking examples of the misapplication of the principles of linguistic comparisons for ethnographic purposes. By the methods he adopts any two languages whatever can be shown to be related. He claims his view to be original; but eighteen years before he published it, the Rev. Joseph Edkins had printed a volume to prove that the Chinese language had its origin in the Mesopotamian plain, because the Tower of Babel stood there, near which the "confusion of tongues" took place! †

Prof. A. Boltz has lately pushed the Sinitic theory to its extreme by discovering elements of Japanese in the tongues of old Babylonia.

These opinions scarcely merit serious refutation; the more so as the whole Turanian hypothesis has distinctly weakened of late years, several of its warmest defenders having gone over to the "Alarodian" theory, which I shall consider presently.

4. *An Alleged "Ground Race" of Unknown Affinities.*

It will be sufficient to mention the notion advanced by Bertin, that in prehistoric times western Asia was peopled by what he calls a "ground race," a variety of the human species of no particular language or physical type, which he imagines once spread over the whole earth and disappeared with the advance of the higher varieties.‡ No evidence is offered for the existence of this fanciful creation of a scientific brain.

THE "STONE AGE" IN WESTERN ASIA.

The absence of a prehistoric, aboriginal people, of a different variety from the white race, resident in western Asia, appears confirmed by archaeological investigations.

Up to the present time no sufficient proof of palæolithic sites within the area I am considering has been presented. §

* Ball's articles on the subject are in the *Proceedings of the Society of Biblical Archaeology*, 1889, and after.

† Rev. Joseph Edkin, *China's Place in Philology* (London, 1871).

‡ G. Bertin, "The Races of the Babylonian Empire," in the *Jour. of the Anthropol. Soc.*, 1888, p. 104, *sqq.*

§ G. de Mortillet, in his *Préhistorique Antiquité de l'Homme*, pp. 178, 288, 450, presents statements to the contrary. But the day is past when we assign a rough stone implement of "chelléen" form at once to palæolithic times. The stratigraphy is the test, and this has not been shown to justify such antiquity in Syrian caves.

Prof. Hilprecht, of the Niffer expedition, brought from the Lebanon range a collection of roughly chipped stones, but I am convinced, after examining them carefully, that they are not completed implements, but "quarry rejects," such as have often been mistaken for palæoliths, or else undeveloped forms.

In the oldest strata of Hissarlik no signs of a "rough stone" age were discovered.* In the caves of the Libanus range examined by Lartet, the oldest remains of man's industry in stone were associated with pottery and the bones of living species of animals.† Later cave exploration, when properly conducted, has everywhere in western Asia repeated this story. Only when the strata have been manifestly *remanié* by nature or man have stone implements been found in juxtaposition to the bones of extinct species.

In none of these deposits have human remains been exhumed presenting the low and presumably very ancient types of the "neanderthaloid" man, or the "pithecanthropus."

The megalithic monuments, the dolmens and menhirs of Syria and Palestine also contain pottery and belong distinctly to the polished stone period, if not to that of early metals. They have been attributed to some prehistoric, non-Semitic people; but the fact that Palgrave and Dr. d'Elyseff found just such monuments in Arabia removes the foundation for such an assertion, and assigns them to early Semitic hordes.‡

This is consistent with the Egyptian portraitures, which represent all the inhabitants of Syria (except the Hittites) with pure Semitic features.§

The conclusion from the above facts is, that from the testimony so far presented, western Asia, instead of being the birthplace of the human species, as has generally been supposed, was, in fact, comparatively lately occupied by man.

* *Verhand. der Berliner Anthropol. Gesell.*, Bd. xi, s. 275.

† Lartet, *Voyage d'Exploration à la Mer Morte*, pp. 215, *sqq.* The latest scientific explorer of the caves of Palestine is Dr. Alexandre d'Elyseff. His full text has not yet appeared, but an abstract was published in the *Bull. de la Soc. d'Anthropologie*, Paris, 1894, p. 217.

‡ Lartet, *Exploration*, etc., p. 238. He gives interesting sketches of a number of these monuments. They were doubtless sepulchral. Hoernes refers them to the "earliest age of metals;" *Die Urgeschichte des Menschen*, p. 462 (Vienna, 1892). Dr. d'Elyseff (*ubi suprà*) assigns those in northern Arabia to the neolithic period. Their builders knew the ass and camel, but were anthropophagous.

§ W. Max Müller, *Asien und Europa nach ägyptischen Inschriften*, p. 229.

MEMBERS OF THE WHITE RACE THE EARLIEST KNOWN OCCUPANTS.

Excluding for the reasons above given the various alleged prehistoric races named, we are justified in saying that western Asia at the dawn of history was under the exclusive control and substantially wholly populated by the white race.

This race is that to which Blumenbach erroneously applied the name "Caucasian," by which it is still familiarly known. It is distinctively the "European," in contrast with the Asian (Mongolian, yellow), and the African (Negro, or black) subspecies. I have, however, assigned it the more correct name "Eurafrican," as its primitive home included northwest Africa as well as western Europe.*

In western Asia it was represented from the remotest historic times, as it is to-day, by branches of its three great linguistic stocks, the Aryan or Indo-Germanic (North Mediterranean), the Semitic (South Mediterranean) and the Caucasian. In a general way, the Caucasian tribes are and always have been in the north, the Aryans in the centre and the Semites in the south. The tribes which cannot positively be assigned to one or other of these stocks I shall consider later.

LINES OF IMMIGRATION.

There was a time when the doctrine was general that the white race originated in central Asia, and moved westwardly into Europe and Africa.

Cogent reasons have of late led to a reversal of this opinion. The white race, as such, most probably had its "area of characterization"† in western Europe and the Atlas region (then united by a land-bridge), and moved eastwardly in two great streams, the Hamitic and Semitic branches journeying south of the Mediterranean, the Aryan and Caucasian north of it.

For a very long period the proto-Semites resided in Arabia, developing there the special traits of their languages, their ethnic character, and to some extent their early culture. Later they spread over Syria and Mesopotamia, advancing in both

*See my *Races and Peoples*, p. 103, *sqq.*, for the subdivisions of the white race.

†I adopt this excellent expression from M. de Quatrefages, and have explained it in my *Races and Peoples*, p. 94.

directions until checked by the North Mediterranean immigrants.*

The Aryans entered Asia chiefly by the Hellespont and Bosphorus. They traversed Asia Minor into Iran, where the lofty chain of the Hindu Kush turned one current to the north to Bactriana, another to the south to Afghanistan and India.†

The Caucasian tribes may possibly have compassed the Black Sea, and thus have reached their mountain homes; but the evidence, both linguistic and archæologic, is that they preceded the Aryans along the same route into Asia Minor, and originally occupied localities well to the south of their present position. The indications are that they did not reach the Caucasus until late in the neolithic period, or about the beginning of the Age of Iron, and then as refugees, driven from more favored climes to the south and southeast, and bringing with them elements of the characteristic cultures of those regions.‡

We cannot suppose a movement in the reverse direction; for, as M. Chantre well remarks: "History does not furnish a single example of a nation which has left the Caucasus to spread itself in the plains near it or in remoter regions." The mountain fastnesses were refuges, not centres of dispersion.§ The most prolonged researches in the caves of the Caucasus and in the drift of its rivers have brought to light no evidence of a really ancient occupation, no traces of an "old stone" or palæolithic condition of culture.||

ANTIQUITY OF THE IMMIGRATION.

While the general movement above outlined has been recognized by various writers, its antiquity has been surely underestimated.

* See an article by me, "The Cradle of the Semites," read before the Oriental Club of Philadelphia, and published, with a paper on the same subject by Dr. Morris Jastrow, Jr., Philadelphia, 1890.

† See the suggestive study of M. G. Capus, "Les Migrations Ethniques en Asie Centrale au point de vue Géographique," in *L'Anthropologie*, 1894, p. 53, sqq.

‡ This is the result of a careful comparison of the oldest artefacts from the necropolises of Trans-Caucasia. See F. Heger, in *Verhand. Berliner Anthropol. Ges.*, 1891, p. 424. M. E. Chantre believes the connection was with Assyrian culture, and an equal authority, M. de Morgan, that it was with Iranian (Morgan, *Mission Scientifique au Caucase*, Paris, 1889).

§ In the *Cong. Internat. d'Archéologie Préhistorique*, Moscow, 1892, Tome 1, p. 173. This illustrates how erroneous was the notion of Blumenbach that the Caucasus was the cradle of his so-called "Caucasian," i. e., European white race.

|| Chantre, *u. s.*, Tome ii, p. 82, sqq. Compare also the article of F. Bayern, "Ueber die ältesten Gräber in Kaukasien," *Sup. to Zeitschrift für Ethnologie*, 1885, and the recent researches of Rösler and Belck in the *Verhand. Berliner Anthropol. Ges.*, 1891, pp. 213, sqq.

When we calculate the age of culture in Mesopotamia and Syria, and especially the time required to develop the extensive changes in the languages and dialects of all three stocks, it is safe to say that the appearance on Asian soil of the northern and southern streams could not have been later than ten or twelve thousand years B.C. We need fully this much elbow-room to account for the changes, physical, cultural and linguistic, in the stocks themselves, and by taking it many difficulties will be avoided.*

Late researches tend strongly in this direction. It has been shown that the Georgian dialect of the Caucasian stock has changed almost nothing in grammar or vocabulary in a thousand years;† the age of the *gāthās*, the oldest songs of the Avesta, has been carried back far beyond the former computations;‡ and in spite of vigorous opposition, the opinion is gaining ground that the more ancient portions of the Rig Veda must be assigned to a period about four thousand years B.C.§ City-building nations lived on the Euphrates six thousand years before our era, as is indicated by the alluvial deposits.|| And other evidence to the same effect is constantly accumulating from various directions.

No position could be more untenable than that recently maintained by Col. A. Billerbeck that the Aryans entered Asia about the thirteenth century B.C., "coming from the north around the Caucasus," (!)¶ into western Asia, and did not become the leading race in Persia until about 800 B.C., a land which he believes was before that date inhabited by a "Mongolian" population. Such views are directly against the evidence. The light which has been thrown on the culture of the Indo-Iranians anterior to that remote period when they separated, by the linguistic researches of Schrader, show that even then they had domesticated those

* As that advanced by Schiaparelli, that we cannot suppose Iran to have been uninhabited when powerful and organized nations dwelt on the Indus and the Euphrates. There is no reason why it may not have been peopled by Aryans as early as these localities were by Dravidians and Semites. Cf. Schiaparelli, *ubi suprà*, p. 316.

† See the admirable work of R. von Erckert, *Die Sprachen des Kaukasischen Stammes*, pp. 238, 300 (Vienna, 1895).

‡ W. Geiger, *ubi suprà*, Introduction.

§ I refer to the arguments of Prof. Jacobi, of Bonn, and the Hindu, Bal G. Tilak. For a very one-sided criticism of these, by Prof. Whitney, see *Proceedings of the Amer. Oriental Society*, March, 1894, p. lxxxii.

|| Dr. J. F. Peters, in *Science*, March 8, 1895.

¶ "Von Norden, um den Kaukasus herum, nach West Asien." Billerbeck, *Susa*, p. 63.

thoroughly Asiatic animals, the camel and the ass, and had lived long enough in their Asian home to develop many local culture-words, which each branch preserved after their division.* Years ago the acute student of antiquity, Vivien de St. Martin, pointed out that throughout the Avesta there is not an instance of a word, proper name or culture-reference which distinctly indicates association with any Turanian or Dravidian nationality.† This significant statement has borne the test of criticism, and is well-nigh conclusive in its bearing on the question at issue.

We may now proceed to scrutinize more closely each of the three great divisions of the white race who dwelt in western Asia in prehistoric and protohistoric times.

The first to arrive, as I have intimated, I take to have been

THE CAUCASIC STOCK.

The clear definition of this stock is one of the most recent conquests of anthropologic science, and is due chiefly to the untiring studies of Gen. R. von Erckert, of the Russian army.‡ He has proved the fundamental unity of the three great groups of the Caucasian languages, the Georgian, the Circassian and the Lesghian. In these groups there are about thirty dialects or languages, and they have not yet been sufficiently analyzed to decide which is nearest to the original tongue, the common *Ursprache*.

The morphology of the stock is strictly its own, severing it as widely from the Ural-Altaic tongues as from those of Aryan or Semitic complexion. It is an entirely independent linguistic family.

The Georgian is the southernmost group, being spoken in Trans-Caucasia about Tiflis. It is divided into several branches, which are scarcely more than dialects, the Grusinian, the Imerian, the Mingrelian, the Lasian and the Svanian. The structure of these is not agglutinative in the proper sense of the word.

* Schrader and Jevons, *Prehistoric Antiquities of the Aryan Peoples*, p. 267, etc. (London, 1890).

† *Geographie du Veda*, Paris, 1859, etc., quoted by L. Schiaparelli in his article already quoted, "Sull'Etnografia della Persia antica anteriore alle invasioni ariane."

‡ *Die Sprachen des Kaukasischen Stammes* (Vienna, 1895). The grouping of the Caucasian languages is not yet settled. Erckert inclines to a provisional, geographical one.

They abound both in prefixes and suffixes, but these are not, or are rarely, independent themes. The same affix may be used either as a prefix or a suffix. The verbs have a direct conjugation in which the theme is verbal, and another in which it is nominal (*e. g.*, "I see it," and "the seeing it is to me").*

The physical type of the Caucasian stock is that of the pure white race, the brunette variety. The modern skulls are broad (brachycephalic), but those from the most ancient cemeteries are much less so, proving that a change has taken place in this respect during historic times.† The stature is slightly above the European average. The hair is dark and wavy, beard abundant, eyes straight and dark, nose prominent. Handsome men are frequent, and the beauty of the women is famous the world over.

In the opinion of M. Chantre—an archæologist who has most thoroughly investigated the subject—the Georgians have resided in their present territory at least since 2000 B.C.‡ This is corroborated by the development of their dialects. Their own legends, which trace their ancestry back to Kartvel, fourth in descent from Noah, are worthless.§

Whenever it was that they reached Trans-Caucasia, they certainly brought with them an advanced culture. The oldest cemeteries belong to the dawn of the Iron Age (the Halstatt epoch); a few burial mounds may date back to the Copper Age, but none are in the exclusively Stone Age.|| This proves, as already suggested, that their earlier development was in another clime, in some more southerly latitude, where they were in contact with an older civilization, which must have been either Aryan or Semitic.

*Fr. Müller, *Grundriss der Sprachwissenschaft*, Bd. iii, Abth. i, s. 216, sq.

†Dr. R. Virchow, *Verhand. Berliner Anthropol. Ges.*, Bd. xiv, s. 474-480. In the necropolis of Samthawo two-thirds of the oldest skulls are dolicho-cephalous. The modern Georgians have an index of about 84°. Many of the old skulls average as low as 73°. See on this Dr. Zaborowski, in *Bull. de la Soc. d'Anthropologie de Paris*, 1894, p. 43. This change in cranial form is doubtless owing in part to intermarriage with brachycephalous stocks, but partly also to persistent antero-posterior deformation finally exerting hereditary influence.

‡See his article, "Origine et Ancienneté du premier Age du Fer au Caucase," in the *Mems. de la Soc. d'Anthropologie de Lyons*, 1892, and in the reports of the International Congress of Prehistoric Archæology at Moscow, 1892. De Morgan refers the older tombs of Armenia and Trans-Caucasia to a period 2500-3000 B.C. (*Mission Scientifique au Caucase*, p. 203.)

§They are epitomized in N. F. Rittich's *Die Ethnographie Russlands*, p. 2.

||Dr. Virchow, *ubi sup.*, p. 482.

Their immediate neighbors on the south were the inhabitants of the basin of Lake Van. These were the "Urartu" of the Assyrian texts, the "Alarodi" of Herodotus, dwelling near the Ararat of the Hebrew Scriptures. They spoke a non-Semitic language, which by Sayce, Lehmann, Hommel and others has been classed with the Georgian. This is probable, although it was certainly more or less Aryanized when we first become acquainted with it (about 800 B.C.).* The native name of the land was *Biaina*, and of the people, *Chaldi*, after their chief god Chaldis. From this they are designated in ancient geography as the "Pontic Chaldeans," to distinguish them from those in Babylonia (the *Kash du*). A sharp culture-line, however, divides these Chaldi from the Georgians. Their mode of burial was quite different, and their proper names cannot be analyzed from the Grusinian lexicon. This line crosses the river Araxes above Ordubad, and is easily traced by the existing remains.†

Another people claimed, with some show of reason, to have belonged to this family were the Mitani, who occupied the great bend of the Euphrates about 37° N. Lat.‡ Certain proper names of divinities and affixes are common to them and to the old Vannic language. The name Mitani itself sounds Georgian, as in that tongue *-ani* or *-iani* is an adjectival suffix (*okhro*, gold; *okhrani*, golden).

Bold attempts have been made to trace the Georgian into Europe.

It has been pointed out that Strabo mentions the Iberians and Albanians as tribes dwelling in Trans-Caucasia; and this is enough to have induced Prof. Hommel to claim that the Grusinian is related to the Albanian of ancient Illyria and to the Basque of the Pyrenees.§ As the former is a well-marked

* "Stark indogermanisirt," as Hommel says. His articles in point will be found in the *Archiv für Anthropologie*, Bd. xix, s. 251, sq., and the *Zeitschrift für Keilschriftforschung*, Bd. i, s. 162, sq. In the latter he says that the old Armenian, the Cossæan and the Suso-Medic belonged "zweifelloos" to the Georgian family. Heinrich Winkler considers the affinity of the Vannic to the Georgian is "shown to be highly probable" (*Ural-Altäische Völker und Sprachen*, p. 145).

† See an excellent article by Waldemar Belck in the *Verhand. der Berliner Anthropol. Ges.*, 1893, s. 81, sq. Bertin (*Gram. of the Langs. of the Cuneiform Inscriptions*) gives three Vannic numerals: 1, *shushi*; 2, *tara*; 3, *shishti*. These are rather similar to the Caucasian: 1, *eshku*; 2, *heri*; 3, *shshi*.

‡ Among others, Dr. Lehmann supports this opinion, *Zeitschrift für Ethnologie*, 1892, s. 130 (though with some hesitation). Compare his *Shamashshumukin*, s. 63. Others connect the Mitani with the "Hittite" tongue. To this I shall refer later.

§ *Archiv für Anthropologie*, Bd. xix, s. 251.

Aryan language and the latter one whose morphology is widely different from members of the Caucasian stock, the suggestion scarcely merits serious reception. The Etruscan, which has, of course, been thought of in this connection, presents no points of positive affinity. Possibly if we knew something of the Ligurian or the pre Italic dialects, we might discover a connection. The Caucasian physical type is certainly that of the south of Europe, rather than of the north.*

THE ARYAN STOCK.

I take it as sufficiently demonstrated that the Aryan cradle-land was in western Europe. Evidence of all kinds is constantly accumulating in favor of this opinion, and I need not rehearse it here.†

In spite, however, of the indisputable relationship of the Aryan tongues, the branches of the stock do now, and apparently always have presented several distinct physical varieties. Prof. Kollmann has claimed that there were at least four of these in prehistoric Europe.‡ Two certainly cannot be questioned. There is the blonde type, with medium or long heads, orthognathic, with fair or ruddy complexions, hair wavy and brown, red or flaxen in hue, eyes blue, gray or brown, stature tall, nose narrow and prominent, beard abundant. Such in Europe are the Scandinavians and Scotch Highlanders; and in Asia such are the Galchas and neighboring tribes, pure-blooded Iranians in the secluded valleys of the upper Oxus.§ The modern Persians, in spite of admixture, partake of it largely, and hence the name of contempt which the Turcomans apply to them, *Guzl-bash*—"red heads."

Another European type is that of the dark Celts. They are brunettes, of short stature, with round, high heads, black eyes

*The able archæologist, M. De Morgan, confuses his readers by calling the Caucasians "Turaniens"—"Les Touraniens, ou blancs allophyles." He means by these the members of what I call the Caucasian branch of the white race, and the map which he gives, "Carte de l'Asie Antérieure pour l'Epoque Assyrienne," in which he marks the southern limit of the Caucasian stock by a line drawn from the mouth of the Araxes to the Amanus mountains, is, I am persuaded, quite accurate. The differences between us are in phraseology only. See his *Mission Scientifique au Caucase*, pp. 197, 202, etc.

†See my *Races and Peoples*, p. 109, sq., for a condensed statement of the argument.

‡See his article, "Les races humaines de l'Europe et la question arienne," in the *Proceedings of the Congress of Prehistoric Archaeology*, Moscow, 1892.

§ Wm. Geiger, *Civilization of the Eastern Iranians*, p. 8.

and hair, somewhat prognathic, beard rather scanty. In proto-historic times they extended through central Europe from the Pyrenees to the Bosphorus, and included the Rhætians, Cro-atians, Roumanians and Dacians. The modern Auvergnats and Savoyards retain the type in its greatest purity.*

The Aryan languages are preëminently inflectional. The proto-historic members of the family in Asia were the Hellenic, the Armenian, the Iranian and the Indian (Sanskrit) groups. To these, which have been recognized by all, I would add the Celtic. All are characterized by suffix-inflections, where the augment is not a separate word, but can be used only as a grammatical adjunct to the theme.

But it is of prime ethnographic importance to note that this represents a comparatively late stage in the growth of language. Prof. Brugmann pertinently remarks: "The first foundations of inflections were laid by the fusion of independent elements. We have to presuppose a period in which suffixal elements were not yet attached to words."†

It is possible that some of the Aryan tribes at the period of their arrival in Asia still retained a condition of the common tongue in which the suffixes were loosely attached to the stem and preserved their independence as words. An Aryan language in this stage might easily be mistaken for one which is agglutinative.

THE SEMITIC STOCK.

As I have already said, the "area of characterization" of the Semitic stock is now generally admitted to have been in Arabia.

When its members began to expand from that centre towards the east and north, the configuration of the land dictated the course they had to pursue. The arid surfaces of the Arabian and Syrian deserts lay between them and the fertile Mesopotamian depression. They were obliged to follow the coast of the Mediterranean and the vales of the Syrian mountains near it for the distance of five or six degrees of latitude northward, before they could turn to the east and reach the "Stream-land" (Naharin) watered by the Orontes and the upper Euphrates (about 36° N. Lat.).

* Hovelacque et Hervé, *Précis d'Anthropologie*, p. 582, sq.

† Karl Brugmann, *Comparative Grammar of the Indo-Germanic Languages*, Vol. i, pp. 14-16.

It would be rash to set a specific date, even in millenniums, for this movement. But it is safe to say that Syria was reached earlier by the north Mediterranean influx than by the Semites. The dialects and languages of the latter stock are more compact, and they contain more culture-words in common than those of either the Caucasian or Aryan families *—facts which indicate longer association in their early homes. It is not likely, however, that the two streams first came into contact at any later date than 7000 B.C.

The Semitic languages are also inflectional, but by a method so unlike that of the Aryan tongues that we cannot imagine any prolonged contact in the formative stages of their structure. Instead of suffix-building, first by the attachment of independent words, and later by formative particles, the Semitic dialects have triliteral radicals which they inflect by internal vowel changes.

The physical traits of the Semites are marked and durable. The head-form is long (dolichocephalic) and the face orthognathic. The complexion, hair and eyes are usually dark, but in about ten per cent. of the stock, even where purest, as in Arabia, the complexion is blonde or reddish, with hair and eyes to correspond. The beard is abundant, and both it and the hair are curlier than in the Aryan. The nose is large, fleshy, and so peculiarly curved that it has been singled out as the most characteristic feature of the race. It is shown on the oldest Egyptian and Babylonian representations as clearly as it is seen to-day.

The northernmost extension of the Semites was defined, on the west, by the range of the Amanus mountains, just south of the Bay of Iskanderun (N. Lat., $36^{\circ} 30'$).† Between these and the Euphrates it is not likely that they permanently extended beyond 37° north latitude. East of that river, the range of the Masius mountains, about latitude 36° north, was their northern limit. In very early times they had probably gained control of

*The oldest forms of Semitic speech, remarks McCurdy, "can be proved by the vocabularies common to them all to have been the idiom of a people already well furnished with the rudimentary appliances of civilization." *History*, etc., Vol. i, p. 138.

†This is the opinion of Dr. W. Max Müller, *Asien und Europa*, etc., p. 340, and is supported by a general agreement. But the date assigned by that writer for the entrance of the Arameans into northern Syria—1500 B.C.—seems quite too recent, in view of the other elements in the case (*As. u. Eur.*, p. 233, 234).

the valley of the Tigris and its affluent, the upper Zab, nearly to the 37th parallel of north latitude and southward to its mouth. This was, and has ever been, their easternmost ethnic limit. The mighty wall of the Zagros mountains, which is described by travelers to look like an enormous buttress rising from the river plain to uphold the tableland of Persia,* and which extends with little interruption under various names in a southeasterly direction from the 38th to the 30th parallel, checked their further advance.

While the broad outlines of the locations of these stocks in western Asia are clear enough, there were a number of small nations near the border lines about whom much doubt still obtains. Some writers claim that they did not belong even to the European or White race, but to another branch of the species.

In examining them I shall begin with

THE PROTO-BABYLONIANS.†

The region near the mouths of the Tigris and the Euphrates (at that time emptying separately into the Persian Gulf) was occupied six thousand years ago by the Sumerians and Accadians on the west, the Elamites and Ansanians on the east, the Kashites adjoining the latter to the northwest, and the Proto-Medes, adjacent to these, in the eastern highlands.

What we know of the relationship of these tribes has been derived from a comparison of the remnants of their languages, and that this has not led to positive results will be clear from the following comparison of opinions :

1. The Sumerians, Elamites, Kashites and Proto-Medes spoke dialects of one language, probably related to the Alarodian or Georgian stock (Hommel, Jensen, Billerbeck).‡

2. The Elamites, Kashites and Proto-Medes were of one speech, while the Sumerians belonged to a totally different stock (Eb. Schrader, Weisbach, McCurdy).§

* Bellew, *From the Indus to the Euphrates*, p. 7. The observations of this author on the disposition of the mountain chains of Persia as desecting the lines of early migration and acting as barriers in some instances, are well worth study.

† For valuable suggestions and references in this part of my subject I am under obligations to Profs. H. V. Hilprecht and Morris Jastrow, Jr., of the University of Pennsylvania.

‡ Hommel, *Zeitschrift für Keilschriftforschung*, Bd. i, s. 161, 330; Billerbeck, *Susa*, s. 26; Jensen, *Zeitschrift für Assyriologie*, 1891.

§ Schrader, "Zur Frage nach dem Ursprunge der altbabylonischen Cultur," in the *Abh. K. P. Akad.*, Berlin, 1894; Weisbach, *Die Achämeniden Inschriften zweiter Art* (Leipzig, 1890).

3. The Elamites, Proto-Medes and Ansanians were of one tongue. The Sumerian was totally distinct, as was the Kashite, the latter possibly having Aryan affinities (Hilprecht).*

4. The Kashite (to be distinguished from the Cossæan) was Semitic, as was the Accadian. The Sumerian was an independent stock (Lehmann).†

5. The Kashite, identical with the Cossæan, was nowise related to either Semitic, Sumerian, Elamitic or Medic (Delitzsch).‡

THE "SUMERIAN" QUESTION.

In striking contrast to the above opinions, Prof. Joseph Halévy, of Paris, has for twenty years contended that there never was a Sumerian language, and that all which has been written about it is a tissue of errors. The natives of Sumer, he maintains, were pure Semites.§

This opinion claims the more attention as these alleged Sumerians, according to various eminent scholars, were the fathers of the Babylonian culture, the creators, therefore, of perhaps the oldest civilization of the world. Consequently, the utmost interest attaches to their ethnic position.

Prof. Sayce has recorded himself in these strong terms: "The science, the art and the literature of Babylonia had been the work of an early people, and from them it (*sic*) had all been borrowed by the later Semitic settlers of the country."|| In a similar strain, Schrader asserts that the Sumerians were the founders of Babylonian culture, and that whatever else they might have been, they were positively *not* Semitic;¶ and Paul Haupt has emphatically stated that to this certainly non-Semitic people, "the whole culture of western Asia must be traced." **

*Prof. Hilprecht acknowledges, however, that the Kashitic and Elamitic proper names have much in common. *Assyriaca*, p. 95.

†Lehmann adds further and needless confusion to the question by applying the term "Accadian" to the Semitic language of Babylon, and confining the "Kashites" to the Semitic inhabitants of Elam. See his *Shamashshamukin, König von Babylonien*, pp. 57, 100, etc. (Leipzig, 1892).

‡Delitzsch, *Die Sprache der Cossäer*, Leipzig, 1884.

§Of the numerous articles of Halévy it will be sufficient to refer to his "Aperçu grammatical de l'Allographie Assyro-Babylonienne" in the *Proceedings of the Sixth International Congress of Orientalists*. He there sets forth with entire clearness the method he advocates.

|| *Introduction to the Science of Language*, Vol. i, p. 3.

¶Schrader, *Zur Frage*, etc., p. 49.

**Haupt, "Die Sumerisch-Akkadische Sprache," in the *Fifth Internat. Orient. Cong.*, p. 249. This distinguished Assyriologist informs me that he has not changed his opinions in this respect.

Halévy's point is, that what has been supposed to be Sumerian epigraphy is nothing more than another method of writing Babylonian Semitic, an "allography," or a secret writing, a "cryptography," used by the priests. The Sumerian graphic method was chiefly ideographic, or, when phonetic, it was rebus-writing similar to that which is found so well marked in America, and which I have named "ikonomatic" writing.*

His explanations, which I cannot enter upon further, are extremely plausible, and evidently have been making headway of recent years. Distinguished Assyriologists, such as Stanislas Guyard and Fr. Delitzsch,† have publicly announced their acceptance of them. Careful historians, such as McCurdy, have been convinced they are right.‡

The reasons are obvious. More and more Semitic elements are recognized in the alleged "Sumerian," until one of the sincere believers in it, Dr. Heinrich Zimmern, has expressed his doubt that there is a single "pure" inscription in the tongue;§ and another, Dr. Hugo Winkler, avers that it was already a dead language long before King Gudea's time, and none of the scribes could write it correctly.|| If this be so, how can anything like a correct grammar be extracted out of their blunders?

Other adversaries of the Sumerian doctrine have pointed out the theory of such an early people overpowered by a foreign population, which absorbed its culture while preserving intact its own tongue, is, as the eminent Assyriologist, Mr. George Smith, long ago said, "without a parallel in the history of the world."¶ In every recorded instance, when a tribe has conquered another of higher culture and adopted its civilization, the language of the conquered appears in that of the conqueror in numerous loan-words borrowed to express the new ideas obtained; but, with few and doubtful exceptions, nothing of the

* See my *Essays of an Americanist*, p. 213, and *Primer of Mayan Hieroglyphics*, p. 13.

† Delitzsch gives his reasons in detail in his *Assyrische Grammatik*, pp. 61-65 (Berlin, 1889).

‡ *History, Prophecy and the Monuments*, New York, 1894.

§ Zimmern, *Babylonische Busspsalmen*, p. 7 (Leipzig, 1885). He asserts that such a graphic method as the Sumerian could not have arisen in a Semitic tongue.

|| Winkler, *Geschichte Babyloniens und Assyriens*, p. 53 (Leipzig, 1892). Gudea may be placed at the most recent date, about 2750 B.C. Prof. Sayce is more cautious. He says: "The Accadian (*i. e.*, Sumerian) had ceased to be spoken before the seventeenth century B. C." *Introd. to the Science of Language*, Chap. i.

¶ *Assyrian Discoveries*, p. 449 (New York, 1875).

kind appears in Babylonian Semitic.* What is not less significant, the inscriptions themselves are entirely silent about any such conquest.†

Furthermore, professional comparative linguists have been nonplussed at the strange features of the alleged Sumerian. Its friends at first wished to class it with the "Turanian," especially the Ural-Altaic, languages. The "Finno-Tartar" was a favorite group. But specialists in the Ural-Altaic tongues unanimously declared that any such connection was an "absolute impossibility."‡ Then recourse was had to the "Alarodian" and the Dravidian; but with no better success. So that finally the conclusion they were driven to was, that it was an independent stock by itself, without affinity, like the Basque, or, perhaps, the Etruscan.

There is nothing impossible in this. Historically, such isolated examples are numerous. But the difficulty lies in the alleged forms of the language themselves. They seem so uncouth as to cast doubts on the whole theory. One word will have more than fifty different meanings assigned it; the system of affixes is most capricious; its supposed system of "vocalic harmony" is unexampled in any other tongue; it omits a number of sounds absent also in Semitic—a suspicious coincidence; and so many disparities in its grammar have to be explained away by assertions of "impure" and "dialectic" texts that the whole assumes an air of uncertainty.§

In view of such difficulties the question is urged, Are not the supposed affixes merely the phonetic determinatives of ideograms, which are themselves used sometimes for their ideographic, sometimes for their ikonomatic values, just as we find them in the Mayan hieroglyphs of Central America? Or, if there is a *fond* which is non-Semitic in the Sumerian (a likely enough supposition), do not the above facts show that it is im-

* A supposed instance is *egal*, palace, literally "great house" (*e*, house, *gal*, great, in "Sumerian"). But may not the few expressions of this kind, as well as the names of gods, Nergal, Anu, etc., merely be borrowings from neighbors?

† Smith, *ubi suprà*.

‡ Prof. Donner, of Helsingfors, has shown that no connection can exist between the Sumerian and any of the five stocks of the Ural-Altaic languages. See *Proc. Fifth Internat. Orient. Cong.* A not less competent authority, Dr. Heinrich Winkler, says that it is "absolut unmöglich." *Ural-Altäische Völker und Sprachen*, p. 169.

§ Delitzsch, *Assyrische Grammatik*, *ubi suprà*.

possible, in the avowedly corrupt condition of the inscriptions, to construct a sane grammar from such *disjecta membra*?

A careful study of the human faces on the oldest Babylonian monuments seems to tend strongly in favor of the Semitic theory. In the excavations at Tello and Niffer we have well-drawn portraits of the people who lived on the Sumerian plain six thousand years ago. To my own eye, they belong wholly to the white race, and frequently unmistakably to its Semitic branch. This also is the conviction of so eminent an ethnographer as Fr. Ratzel. In his discussion of the subject he writes: "All of them, even the common people, the captives and the eunuchs, present the Semitic traits. Not one in the most remote degree approaches the Turanian type."* All the professed physical anthropologists who have examined the ancient portraiture, without prejudice, have arrived at this same conclusion.

Even if there was a Sumerian language, related or not to the Susic, it by no means follows that those who spoke it were the authors of the ancient culture. On the contrary, there is evidence the other way. The primal centre of progress was not in Sumer, not among the litoral people of the Gulf, but up the river, far inland. As McCurdy observes: "We can have no hesitation in vindicating for the region north of Babylon, the claim put forth in Genesis, that the seat of the earliest civilization was the place of the parting of the rivers."†

A curious bit of linguistic evidence illustrates this. The earliest Babylonians knew no metal but copper, and used it only for ornaments. When they first became acquainted with pearls and adopted them as ornaments, they called them "fish-copper," i. e., ornaments from fishes. This shows that they were an inland people.‡

*Friederich Ratzel, *Völkerkunde*, Bd. iii, s. 739 (Leipzig, 1888). Lehmann, on the other hand, cannot see anything Semitic in the faces from Tello! (*Shamashshamukin*, p. 173). It is enough to say that they have full, strong beards, abundant curly hair, nose prominent and curved, the bridge raised, eyes straight, skull symmetrical and arched, in order to satisfy any somatologist.

†*History, Prophecy and the Monuments*, Vol. i, p. 124. S. Reinach, a most competent authority, declares that the most ancient Babylonian art "n'est pas Égyptisant," but arose independently. *Revue Archeologique*, 1893, p. 104.

‡Haupt, in his article, "Wo lag das Paradies?" in *Ueber Land und Meer*, 1895. The copper from Tello is entirely pure, without a trace of tin. It doubtless came, as Virchow maintains, from deposits of this character in Trans-Caucasia. *Verhand. Berliner Anthropol. Ges.*, Bd. xix, p. 336.

According to Lehmann, however, the people at the parting of the rivers, the Akkads, were Semitic;* and Zimmern, who believes them Sumerians, acknowledges that they spoke a "younger," i. e., more Semitized dialect.† This seems to intimate that if there was a Sumerian people, its culture was learned from an earlier inland Semitic nation, and not the reverse, as Sayce and others above quoted have maintained. This supposition, it appears to me, would explain away more of the difficulties in the case than any theory yet offered; and I do not remember that it has heretofore been suggested.

THE ELAMITES, KASHITES, ANSANIANS AND PROTO-MEDES.

As will be seen above, the consensus of opinion is in favor of considering these as branches of one stock.

The main difficulty is with the Kashites (Kashshu). Their territory adjoined Elam, and just about where it was situated Herodotus locates a region "Kissia," and Strabo and Pliny, a free, mountain bandit tribe, the Cossæi. The effort has been made to distinguish between these; but the identities of both name and location are too complete to admit reasonable doubt but that the same people was intended.‡ The Kashites are described as mountaineers living in tents, just as Strabo depicts the mode of life of the Cossæi.

The ancient inscriptions in the various dialects of this stock, to wit, the Susic, the Neo-Susic, the Ansanian, the Apirian and the Proto-Medic, are comparatively numerous, but it must be

* *Shamashshamukin*, p. 57.

† What is known as the *g* dialect. Zimmern, *Babylonische Buesspsalmen*, p. 7. The myth of the culture-hero, Oannes, half man, half fish, rising from the waters of the Persian Gulf, has, of course, no historic value, any more than that of Ea, the marine god, who created the first man.

‡ Friedrich Delitzsch asserts that the proper names in the Proto-Medic inscriptions, "fast unverkennbar arisches Gepräge tragen" (*Die Sprache der Cossæer*, p. 49). Dr. Hugo Winkler says that there is "kaum eine andere Möglichkeit vorhanden," than that the Kashites belonged with the Medes and Elamites; *Geschichte Babyloniens*, p. 78. McCurdy, reviewing the evidence, decides this is so, "in all probability." *History*, etc., p. 143. They ruled Babylonia six hundred years and their names do not seem to be Semitic, except where such were adopted. Their name for Babylon was *Karduniash*. Gesenius long ago suggested that the Chaldees might be "the Chardim," allied to *Kard*, *Kurd*, names applied to Aryan peoples, derived from old Persian *Kard*, Ossetic, *Khard*, etc., the ancient Aryan term for the sword or dagger, and also for iron (Schrader, *Prehistoric Antiquities of the Aryan Peoples*, p. 224). There was a tribe, the Kaldani, among the Kurds, who claimed to be lineal descendants of the ancient Chaldeans (Loftus, *Travels*, p. 99). What if the primitive Babylonian civilization should turn out to be of Aryan origin after all?

acknowledged that little progress has been made in their decipherment. The "second column" of the great Behistun inscription is held to be Proto-Medic (Neo-Susic). It is described as a tongue employing suffixes only, with at least four well-marked tenses, and with a kind of declension of nouns.* It has been declared to be "non-Aryan and non-Semitic," but there is nothing in its morphology as described to exclude it from the Aryan family.

It has been the custom with most Assyriologists to take for granted that all the tribes mentioned, as well as others inhabiting Elymais and Media in early days, as the Parsua, Anduia, Namri, Ellipi, etc., were neither Aryan nor Semitic. In this spirit Dr. Winkler, in his lately published History asserts that it was not until the reign of Psalmanasar II (about 850 B.C.), that the Aryan Medes (the Western Iranians) appear in Semitic history, their predecessors in the region having been non-Aryan.†

It is difficult to see any sufficient grounds for such an assumption. The Cossæi and their northern neighbors, the Mardi, whom Strabo describes, were certainly Aryans, and if the Kasshu were the ancestors of the former, they, too, were of Aryan lineage. The Elamites of "Shushan the palace" maintained their power till a late date; their descendants were the Uxii of the Alexandrinian conquest; and these were surely not of an allophyllic stock. They were either Semitic or Aryan. A thousand years B.C. the powerful and warlike Minnean nation mentioned by the prophet Jeremiah was on the southern shore of Lake Urumia, and that they were of Aryan speech is attested by such names of their kings as Iranzu, Ulusunu, etc.‡ The theory which has been advanced by some that the Ossetes of the Caucasus, who speak an archaic Aryan tongue related

*F. H. Weisbach, *Die Achämenidenischen Inschriften zweiter Art*, p. 46 (Leipzig, 1890). Inscriptions in Neo-Susic date between 1100 B.C. and 370 B.C. Weisbach calls the language in which they are written "Finno-Tartaric, richly mixed with Aryan words." *Id.*, p. 11. On the other hand, Dr. Heinrich Winkler, an excellent authority, formally denies that it can be classed with any Ural-Altaic language. *Ural-Altäische Völker und Sprachen*, p. 169. As Weisbach has shown the linguistic unity of Ansanic, Susic (Elamitic), and Neo-Susic (old Medic) in his *Ansanische Inschriften*, 1891, p. 34, this applies to the whole group.

† *Geschichte Babyloniens und Assyriens*, s. 242.

‡ *Jeremiah*, chap. li, ver. 27. An admirable article on "Das Reich der Mannäer," by Waldemar Belck, may be found in the *Verhand. Berliner Anthropol. Ges.*, 1894, p. 479, sqq. He does not identify their ethnic relations, but to me the proper names admit of no doubt that they were Aryans.

to Iranian, were in fact descendants of the Proto-Medes, driven from their southern homes, is deserving of respectful consideration.*

Whether the Guti and the Lulubi who possessed the valley of the Tigris on the east of the stream (from Lat. 34° to Lat. 37°) belonged with the Susic group, the material is too scanty to decide. Their writing was in Babylonian, and their royal names largely Semitic, but neither of these facts is conclusive.† While Prof. Hilprecht has classed them with the Semites, Oppert has suggested, not without some show of reason, that the name "Guti" has an Aryan sound, like Gothi, the Goths, and therefore that the tribe itself may have been of this blood.‡

The vocabularies of these languages might be supposed to give definite information concerning their relationship. The material in the Kashite, Susic and Medic is, however, too scanty to admit of satisfactory comparison. Of the Sumerian, at least one-third the words are acknowledged by believers in the tongue to be of Semitic origin. Others, as *balag*, axe (Greek, *πτελεχυσ*), *gushkin*, gold (Armenian, *osxi*), are admitted to be Aryan. To these, it seems to me, should be added the well-known word *tur*, son, which is also Susic, and belongs in the oldest *gāthās* of the Avesta.§

The numerals, except in Sumerian, have been very imperfectly ascertained. The following lists will serve for comparison :

	SUMERIAN.	ASSYRIAN (ROOTS).	INDIAN.	GEORGIAN.
1.	<i>dish, ash,</i>	<i>ahaa,</i>	<i>eka,</i>	<i>ar, arthi.</i>
2.	<i>min, man, dab, tag, kash,</i>	<i>shan,</i>	<i>dwa,</i>	<i>ori, dziri.</i>
3.	<i>pish, esh, ush,</i>	<i>salash,</i>	<i>traj,</i>	<i>sami, sumi.</i>
4.	<i>lim, lam,</i>	<i>arba,</i>	<i>tshatrar,</i>	<i>othxi.</i>
5.	<i>d, ia,</i>	<i>hamis,</i>	<i>pantcha,</i>	<i>xulhi, xut.</i>
6.	<i>ash,</i>	<i>shash,</i>	<i>sas,</i>	<i>ekhusi, usklwaash.</i>
7.	<i>tmin,</i>	<i>sib,</i>	<i>saptan,</i>	<i>shvidi.</i>
8.	<i>us, sa,</i>	<i>sham'n,</i>	<i>astan,</i>	<i>rua, ara.</i>
9.	<i>ilim,</i>	<i>tish,</i>	<i>nawan,</i>	<i>tsxra.</i>
10.	<i>u,</i>	<i>isir,</i>	<i>dasan,</i>	<i>athi, withi.</i>
20.	<i>nish, shana, mdn,</i>	<i>isra,</i>	<i>wi-sati,</i>	<i>otsi (=2 × 10).</i>

* *Mems. de la Société d'Anthropologie de Lyons*, 1891.

† Winkler believes that the Guti had a tongue of their own, but wrote in Semitic. *Geschichte Babyloniens*, p. 82. Hilprecht gives reasons for holding that Semitic was the native language of both Guti and Lulubi. *Old Babylonian Inscriptions*, pp. 12-14 (Philadelphia, 1894).

‡ *Revue Archéologique*, 1893, p. 363.

§ In the Avesta, the Tūra people are Iranians (not Turanians). See W. Geiger, *ubi supra*, p. 32. In Persian legend Tūr and Era were brothers, sons of Frēdūn, the founder and father of the Iranian tribes. The Armenian *os-t-r*, son, preserves the radical. The first syllable corresponds to the Greek *vs*. The second probably defined the oldest son, and hence came to have the sense of chief, prince. This analogy has been suggested to me in part by Prof. Hilprecht.

A few common words taken from the tongues mentioned, with their correspondents in the Caucasian and Brahu dialects, will show how slight is the lexical similarity between them.

	SUMERIAN.	COSSÆAN.	SUSIC OR ANSANIC.	HITTITE.	GEORGIAN.	LESGHIAN.	BRAHU.
Man,	<i>lu,</i>	<i>malî,</i>	<i>ruh,</i>		{ <i>mare,</i> <i>katsi,</i>		<i>bandagh.</i>
King,	<i>lugal,</i>	<i>ianzi,</i> ¹	{ <i>sunkik,</i> <i>zunkuk,</i>	<i>siris.</i>			
Lord,	<i>u,</i>	<i>burî, ubri,</i>			<i>thavad.</i>		
Servant,	<i>eru,</i>	<i>melî, kukla,</i>					
Son,	<i>tur,</i>		<i>shak,</i>	<i>s-t-r, sis,</i>	<i>arsh, ush,</i>	<i>darga,</i>	<i>mâr.</i>
Child,	<i>du, dumu,</i>	{ <i>ulam,</i> <i>sim mash,</i>			<i>bashi,</i>	<i>bere,</i>	<i>chunaka.</i>
God,	<i>dingêr,</i>	<i>bashu,</i>	<i>nap,</i>		<i>ghmerthi,</i>	<i>bishi.</i>	
Heaven,	<i>ana,</i>	{ <i>ihulu,</i> <i>dagigi,</i>			<i>ca,</i>	<i>oala.</i>	
Star,	<i>mulu,</i>	<i>dakash,</i>			<i>mariczi,</i>	<i>iri,</i>	<i>istar.</i>
Head,	<i>sag,</i>	<i>barhu,</i>			<i>thav,</i>	<i>bik, kil,</i>	<i>katum.</i>
Foot,	<i>gêr,</i>	{ <i>hameru,</i> <i>saribu,</i>			<i>fezi,</i>	<i>gel,</i>	<i>na.</i>
Land,	<i>kur, ki,</i>	<i>iash,</i>	<i>murun,</i>		<i>mitca,</i>	<i>antza,</i>	<i>mish (place).</i>
Wind,	<i>gêr, imi,</i>	<i>turuhna,</i>			<i>khari,</i>	<i>huri,</i>	<i>taho.</i>
Bow,	<i>pan,</i>	<i>shir,</i>			<i>shvildi,</i>	<i>derga,</i>	<i>bil.</i>
House,	<i>e,</i>				<i>saxl,</i>	<i>khôl,</i>	<i>ura.</i>
Moon,					<i>pîri,</i>	<i>batci,</i>	<i>tû.</i>
Month,							
Name,	<i>mu,</i>				<i>saxêh.</i>		
Great,	<i>gal,</i>			<i>m-s-s,</i>	<i>didi, gangal,</i>		<i>balo.</i>
Hand,	<i>shu,</i>		<i>kurpi,</i>		<i>xê,</i>	<i>zab,</i>	<i>dû.</i>
Nose,	<i>kir,</i>		<i>shimme,</i>		<i>czind,</i>	<i>me'er,</i>	<i>basas.</i>

In such ethnographic questions the elements of historical connections and duration of time enter as significant factors. For that reason I insert the following synoptical table of

PROTOHISTORIC BABYLONIAN CHRONOLOGY.*

B.C.

- 4000. King Ur-Ninâ at Lagash (Tello).
- 3850. Alusharshid conquers Elam.
- 3900. Sargon I rules central and southern Babylonia and Elam.
- 3750. Naram Sin, his son, at Sippar.
- 3000. Ur-bau rules at Lagash.
- 2800. Supremacy of the Kings of Ur.
- 2750. Gudea (Nabu) rules at Lagash.
- 2350. Babylonia is conquered by the Elamites.
- 2300. Abraham departs from Ur.

*The dates have been kindly revised for me by Prof. Hilprecht. They may be regarded as the minimal which can be assigned.

B.C.

2250. The Elamites, under Chedar-laomer, enter Palestine and are defeated.

2250. Rim Sin, last king of Sumer and Accad.

2240. Chammurabi expels the Elamites and rules both north and south Babylonia.

1730 to 1140. A dynasty of Kashite kings rules at Babylon.

1350. Babylonia is conquered and reduced to a tributary by the Assyrians.

No one can glance over this table without being impressed with the long and close connection which the Elamitic and Kashitic tribes had with the Babylonian Semites. This must have left deep ethnic traces on all three stocks.

THE ANATOLIANS (HITTITES).

The region included in Cappadocia, Galatia, Cilicia and western Armenia was known to the Babylonians from very early times as *mat Hatti*, "the land of the Hittites," a people who bore the same name in the Egyptian documents, *Heta*.* They were non-Semitic, but their precise affiliations have not yet been decided. They had a syllabic, hieroglyphic writing, which probably arose in Cilicia,† and which has been in part interpreted, but not yet sufficiently for extended comparison.

It is almost certain that the same people extended westward through Lycaonia, Pisidia, Lycia, Caria and Lydia;‡ that is, along the whole south coast of Asia Minor to the Ægean sea, and northward to the boundaries of Phrygia and Mysia, which were inhabited by tribes of Hellenic origin.

This southern family has been pronounced by Sayce to be of "Mongolian" connections; by Hommel and also at times by Sayce to be "Alarodian," *i. e.*, Georgian; by Pauli and Tomaschek to be a wholly independent linguistic stock, to which the

* The earliest reference to the Hittites in the annals of Mesopotamia is to a conquest of Akkad by "the king of 'Hatti'" (or 'Hati'), about 3800 B.C. See authorities quoted by de Morgan, *Mission Scientifique au Caucase*, p. 193. This author believes that about 4000 B.C. the "allophylic white stock," *i. e.*, the Caucasian peoples, overran much of western Asia. *Ibid.*, p. 197.

† Dr. W. Max Müller claims that it certainly did. *Asien und Europa*, etc., p. 350.

‡ The Philistines who invaded Palestine towards the close of the second millennium B.C. quite certainly belonged to this stock, and not to the Cretans, as has lately been reasserted by Mr. Arthur J. Evans (*Proc. Brit. Soc. Adv. of Science*, 1894, p. 776. Compare Dr. W. M. Müller, *u. s.*, p. 387, *sqq.*). There were never any Hittites proper (*i. e.*, from Cappadocia) settled in Palestine. The Orontes marked their furthest southern limit. *Ibid.*, p. 224.

former gives the name "Pelasgian," and argues that its European connections were the Pelasgi and the Etrusci.* On the other hand, Fr. Müller, Mor. Schmidt, G. Radet and P. Jensen have concluded that it is some remote, not clearly defined, member of the Aryan family.† While J. Halévy, on the strength of the inscriptions from Sindjirli, has claimed the Hittites who once lived in that region as Semites.

Recent archæological researches in Paphlagonia present evidence that before the arrival of Greek colonies from the west this territory was peopled by the same stock; and at the height of their power they may have controlled a large portion of the eastern shores of the Ægean sea. This was about 1200–1500 B.C.; and it has been argued from a variety of evidence that near the former date they were conquered and scattered or absorbed by their Semitic, Egyptian and Hellenic foes. Prof. Ramsay and others have identified them with the Amazons of the Homeric legends on reasonably good grounds‡

It is quite likely that *mat Hatte* was a very vague phrase to the Assyrian mind; and it is wiser not to employ "Hittite" as an ethnic term. It has been proposed (by whom first I know not) to designate collectively the tribes above named as related, by the term "Anatolians," from the ancient name of Asia Minor; and I adopt this appropriate suggestion. Perhaps some of the easternmost and southernmost of the so-called Hittites did not belong in the Anatolian group, but those in most of Cappadocia and Cilicia in all probability did.

At various times, after and probably before the dawn of history, the Anatolian group proper extended its conquests southward; and it is the opinion of Hoernes§ and others that they were the pre-Semitic inhabitants of the whole of Syria. It is even possible, as Mariette and Hilprecht|| have suggested, that the Hyksos dynasty of Egypt in the second millennium B.C. was an advanced outpost of the group, though this at

* Pauli, *Eine Inschrift von Lemnos*, p. 79; Tomaschek, *Die Urbewölkerung Kleinasiens*, in the *Mittheilungen* of the Vienna Anthropol. Soc. for 1892.

† Dr. Jensen's article was published in the *Sunday School Times* (Philadelphia), April 1, 1893.

‡ See a series of articles on "Die Paphlagonischen Felsengräber," by Lt. von Kannenberg, in the *Globus*, Jan. and Feb., 1895, especially p. 124, note.

§ Dr. Moritz Hoernes, *Die Urgeschichte des Menschen*, p. 454 (Vienna, 1892).

|| Hilprecht, *Assyriaca*, p. 130 (Boston, 1894).

present rests as a surmise only. That the Kashites and kindred tribes on the lower Tigris were distant members of the same group has been suggested by Hommel and Hilprecht, but with the material difference, that the former defends the connection with the Caucasic, the latter with the Aryan linguistic stock.

When we combine what we know of the physical type and the language of this ancient people there would seem to be evidence enough to assign it its ethnic position.

The type has generally been studied from the local monuments and the Egyptian records. The portraitures on the latter, especially of enemies, are often either conventional or caricatures. When we see the Hittites shown with "yellow or red complexions, receding foreheads, oblique eyes, protruding upper jaws and high cheek bones,"* and all very much alike, we may be sure that both motives were present. The delineations on their own monuments are quite different and much higher, more Aryan, in character.†

It is a mistake to suppose that the so-called Hittite art was altogether borrowed from their Semitic neighbors. While the old Chaldean influence is visible in it, there is also a marked element of originality which should not be overlooked. The motives of the latter constantly recall Aryan inspiration and forms.‡

More trustworthy than sculpture are the bones from the oldest graves of the region. In examining these, Dr. von Luschan made an interesting discovery. He found that a peculiar type in early times extended over southern Asia Minor, from the Ægean east to the Euphrates, and northeast into Armenia. The skulls were remarkably broad and high, and the bones showed a people of short stature. In other words, he discovered just the type of the globular-headed, short Celts of Central Europe. He went further. He found that in the more sparsely inhab-

* See McCurdy, *History, Prophecy and the Monuments*, Vol. i, p. 193.

† A number of them are given from various sources by W. Max Müller, *Asien und Europa*, pp. 325-330. They are generally painted with reddish hair, which is worth noting, but may be conventional. The absence of beard indicates the custom of shaving. On the conventionality of the Egyptian artists see the same writer in the *Papers of the Oriental Club of Philadelphia*, p. 78 (Boston, 1894). The ruins of the ancient Pteria are supposed to offer the purest examples of native Hittite work.

‡ "L'influence qui a présidé aux arts chez ce peuple est purement chaldeo-babylonienne, et non assyrienne; mais en même temps elle conserve son originalité." De Morgan, *Mission Scientifique au Caucase*, p. 198.

ited portions of the country there still live a shy, secluded people, the Taktadschy, who preserve just these traits, and he at once noticed their similarity to the Auvergnats and Savoyards. They are recognized as the descendants of the most ancient inhabitants, and certainly present their characteristics.*

The inscriptions and local dialects of Cappadocia and Lycia preserve some expressions which appear to me to be of the Lesghian group of the Caucasian stock; as

CAPPADOCIAN.		LESGHIAN.	
woman,	<i>lada</i> ,	<i>thladi</i> ,	wife.
son,	<i>tideime</i> ,	<i>gedai-mi</i> ,	son (thy).
six,	<i>lingir</i> ,	<i>ointhligu</i> .	
seven,	<i>tüllü</i> ,	<i>othlgu</i> .	
eight,	<i>mütlü</i> ,	<i>mithlgu</i> .	
nine,	<i>dangar</i> ,	<i>udczgo</i> .	

These indicate that at some time in the past there has been an impermeation of Caucasian elements into the Cappadocian population.† The Taktadschy have adopted the modern Turkish, at least for intercourse with the world.

The Anatolian inscriptions proper seem as likely to be in Aryan as in any other stock. The personal pronouns *mi* and *ti* are surely Aryan, and not "Alarodian," as Hommel argues;‡ they are the English-Aryan *me* and *thee*; the word for son, *s-t-r*, corresponds to the Armenian *ustr*; "sirís," king, is Aryan, and so on §

The strongest evidence is in the ancient place-names. These show peculiarities in western and southern Asia Minor which have been repeatedly commented upon. A large number of them terminate in *-anda* (*-enda*, *-inda*, *-onda*) or in *-ess* (*-assa*, *-essos*, etc.). They extend westward into Thrace and Macedonia, proving a European connection in prehistoric times. Pauli, Toma-

*See Von Luschan's article, "Die Taktadschy," in the *Archiv für Anthropologie*, 1893.

†Tomaschek quotes some of these from the Glossary of the Cappadocian dialect lately published by Capolides, which work I have been unable to see. Tomaschek does not offer any analogies for them. Others belong to the "Lycian inscriptions," of which a Corpus is soon to be published by the Imperial Academy of Vienna.

‡In the *Archiv für Anthropologie*, Bd. xix, p. 231.

§See the article of Dr. Jensen above referred to for other instances; and also his replies to the criticism of Prof. Sayce in the *Academy*, 1894. Of course, within the territory of the Anatolians we may expect to find both Semitic and Caucasian names and inscriptions, as it was the meeting-ground of the three stocks for thousands of years before history began, as it has been ever since.

schek and others claim that they cannot be analyzed as of Aryan extraction.*

Such an opinion seems to me without foundation. We find such place-names wherever the Celtic stock of central Europe left its traces. For the termination in *-ess*, I need but instance *Vindonissa*, *Vogessus*, *Sigonessus*, *Bodiocassus*, etc. Its signification is well known. It means "the seat" (*sedes*, *sessio*, *positio*) of the person or tribe, and in this sense was especially employed as a suffix in the Celtic dialects.†

The termination *-anda* in the form *-anta* or *-ante* is a familiar Celtic suffix of tribal names, as *Brigantes*, *Trinobantes*, etc. From these were derived place-names, as *Carantia*, *Brodentia*, etc. The later terminations in *-anza* or *-enza*, as in *Braganza*, *Piacenza*, etc., were corruptions of this, as was also the German termination in words like "*Pegnitz*," etc.‡

Many other proper names of places and persons from southern Asia Minor have lately been analyzed by M. Georges Radet, and his researches appear to place beyond doubt these two theses—1. That the original Anatolians constituted an ethnic unit; 2. That they spoke a tongue of Aryan affiliation.§

Many of these names have a Celtic physiognomy. Thus the Hittite royal names, *Thargathazas*, *Tarthisebu*, etc., simulate the Gallic *Thartontis*, *Turones*, etc., in which the prefix *tar* (*thar*, *tur* or *dor*) means "above, across," and by metaphor, superior, leading, etc.||

A more striking coincidence is offered by some religious terms.

It is generally conceded that the Ephesian *Diana* was originally a "Hittite" deity, and that her name *Artemis* is an Anatolian word. It is also known that the original form under which she was worshiped was that of a black conical stone, thought to have been a meteorite. Now in Celtic *artan* means "a stone," and it often forms a part of proper names, as *Artgal*,

* Pauli has been industrious in collecting such place-names. A long list will be found in his *Inscript von Lemnos*, above quoted.

† This is the explanation of Zeuss, *Grammatica Celtica*, pp. 61 and 747-749. I am surprised that it has been overlooked.

‡ See Zeuss, *Grammatica Celtica*, pp. 759, 760. It has been suggested that this termination is the Old Indian *inda*, *sindhu*, river, whence *Indus*, etc., applied to tribes, towns, etc., on a river.

§ See the *Rèvue Archéologique*, Tome xxii (1893), p. 209, *sqq.*

|| The Celtic *tar essi* (see above), is translated "super locum, in loco." Zeuss, *u. s.*, p. 613.

Artbran, Artobriga, etc. Still more : when St. Domitian undertook the conversion of the Celtic Segusiani, who lived in the Auvergne mountains in France, he found what appears to have been a sacred rock among them which was called *Artemia* ! *

I have already referred to the Amazons as a Hittite class of priestesses. Lieut. von Kannenberg derives their name from the Circassian *maza*, moon ; but this Circassian word is not from a Caucasian, but an Aryan root, Sanscrit *masa*, "the measurer," and was applied to the moon as the measurer of time, as Von Erckert has abundantly shown.† The Amazons were indeed the priestesses of the moon, but their name is Aryan strictly and refers to their being devoted *ad masam*, to the moon, as the measurer of the nine months of pregnancy.

This identification explains how it happened that in the year 279 B.C. a horde of Gauls from central Europe crossed the Hellespont, and proceeding to central Asia Minor, settled in a portion of the ancient *mat Hatte*, from them ever since known as "Galatia."‡ There they lived, retaining their own tongue with the usual Celtic tenacity so completely that St. Jerome, seven hundred years afterwards, says they were the only people of his day in the whole of Asia Minor who did not speak Greek.§

To sum up, then, the view I advocate is, that the Anatolians proper were of the Celtic stem of the Aryan race ; that several thousand years B.C. they came from the west and occupied the valley of the Halys and more or less land to the east and south of it, driving out, or subjecting and retaining, an earlier population of the Caucasian (Lesghian) stock ; that about 1200 B.C. they were themselves overwhelmed by Semitic and Hellenic adversaries ; that a portion of them rejoined the Celts of Europe ; and that it was to make good some traditional, ancestral claim that the descendants of these in 279 B.C. again possessed themselves of the basin of the Halys.||

* "Usque ad petram quæ Artemia dicitur." Zeuss, *Grammatica Celtica*, p. 78.

† *Die Sprachen des Kaukasischen Stammes*, Bd. i, s. 103.

‡ "Galatæ" is from the Celtic root *gal*, violent, and is translated by Zeuss "viri pugnares armati." *Gram. Celt.*, p. 993, note. The authorities on this invasion are well collated in Schliemann's *Ilios*.

§ This also explains the difficulty commented on by Dr. John Beddoe (*The Races of Britain*, p. 22) that various local names in Galatia and its neighborhood anterior to the arrival of the Galatians appear to be from Celtic roots. Niebuhr's theory that the Galatians were Teutons has now, I think, no defenders.

|| The assertion of Schliemann (in *Ilios*, p. 120), that "No Aryans were settled east of the Halys before the eighth century B.C.," is possibly true if confined to Aryans of Hellenic descent, but certainly not as a general statement.

CONCLUSIONS.

My general conclusions are :

1. That there is no evidence of a prehistoric, non-Eurafrican race in western Asia. Its soil has always been possessed either by the Caucasian, the Semitic or the Aryan branches of the White race.

2. There are distinct signs that the Caucasian stock in prehistoric times extended over large areas south of their present homes, and were driven north by the attacks of the Aryans and Semites.

3. The chains of the Amanus on the west, the Masius on the north and the Zagros on the east have been from immemorial eras the limits of durable ethnic impressions by the Semites.

4. From the Zagros to the Pamir, the Aryan stock occupied or controlled the land at the dawn of history. Medes and Proto-Medes were alike Aryans.

5. The civilization of Babylonia arose from some branch or blend of the White race, and not from any tribe of the Asian or Yellow race, still less from the Dravidian or Black races.

6. The Anatolian group of Asia Minor were allied to the Gallo-Celtic tribes of central Europe, and preceded by probably several millenniums the Hellenic migrations into Asia.

Biographical Sketch of the Hon. Thomas H. Dudley, of Camden, N. J., who Died April 15, 1893.

By William John Potts.

(Read before the American Philosophical Society, April 19, 1895.)

Thomas Haines Dudley, born 10th mo. 9, 1819, died 4th mo. 15, 1893, elected a member of the American Philosophical Society 10th mo. 15, 1880, was descended from Francis Dudley and Rachel Wilkins, his wife, a member of the Society of Friends who came from the Parish of St. Peter, Wolverhampton, Staffordshire, about 1730. Francis Dudley was the son of John Dudley and Mary Arney, of that parish, who were married in 1708. Another account says the name of his mother was Jane Dudley. John, the English ancestor of this New Jersey family of Dudley, died in 1746. In the parish register of St. Peter's he is named as "singing man and clerk."